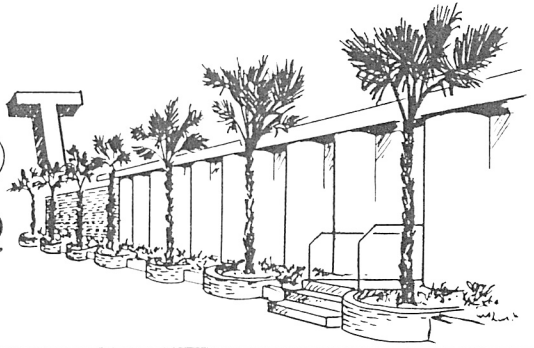


THE ES PALMIST

ELECTRONICS DIVISION-PORTLAND



Vol. 4. No. 10

ELECTRONIC SPECIALTY CO., ELECTRONICS DIV., PORTLAND, ORE.

OCTOBER, 1967

Division Awarded Two Major Contracts

John Genoud Named Controller of Electronics Division

John Genoud has been promoted to the newly created position of Controller of the Accounting Department of the Portland Electronics Division, according to a recent announcement by General Manager Nakamura.



This new position was necessitated by, and is part of, the forward growth and development of our Division, and its need for self-sufficiency.

Hugh Russell has ably coordinated the Controller's functions for both Portland based divisions for many years. The increased growth and development in both Divisions has now made it desirable for each to provide for its individual needs.

John is well qualified for his new position, having served this Division as Manager of its Accounting Department for the past 12 years. He joined the Electronics Division in 1955.

John is a native of Oregon, a graduate of Oregon State, and a Certified Public Accountant.

Some men succeed because they are destined to, but most men because they are determined to.

Olin Alum. Licensed To Manufacture New ES Developed Alloy

Los Angeles, Calif., October 4, 1967--Electronic Specialty Co. has granted the Aluminum Division of Olin Mathieson Chemical Corporation a license to manufacture the new super-strength KO-1 aluminum alloy, it was announced today by Elmer A. Sticco, vice president, Materials Technology Group.

Mr. Sticco said KO-1 has the potential to replace forged aluminum---a market which currently exceeds \$100 million ---in many components currently in use throughout industry. "KO-1 is the first important development in the aluminum casting field since the introduction 35 years ago of Alloy-356---used widely since then in most aluminum casting operations," he added.

The new alloy is composed of copper, magnesium and titanium, with a minor but essential addition of silver. "The market position of silver, however, with regard to price and availability cannot affect the cost of the alloy," Mr. Sticco said.

The ES group vice president stated that KO-1 is ideally suited to be cast to form such lighter-weight, greater strength components as landing gear struts and high stress parts in cargo systems for the aircraft industry, and suspension components and gear box housings for the automotive and truck industries. "The potential uses of KO-1 could require a very large production output in the years ahead," Mr. Sticco added.

There is only a slight difference between keeping your chin up and sticking your neck out, but it is a difference worth knowing.

Memcor, Inc. and Martin-Orlando Sign With ES

Our Divisional Sales Group has recently concluded negotiations resulting in two substantial contracts for relay production.

The larger of the two contracts is with Memcor, Inc., of Huntington, Indiana, a division of Ling-Temco-Vought, and amounts to approximately two million dollars. It calls for production of our 68, 69 and 95 series relays, with deliveries to begin next month. Scheduling has already begun, and is expected to start with a production of 700 units per month, with constant acceleration until the peak is reached. Production will continue into 1972.

These relays will be used on the VRC-12 electronic communications equipment, a tactical radio system of mobile transmitters and receivers for communication between U. S. Army armor, jeeps, trucks and cars.

A second contract for our 55 series relay, amounting to more than \$250,000 was received from the Martin Company of Orlando, Florida. These units will be used in the ground support electronic launch control equipment for the Pershing missile. The initial order calls for a delivery schedule also beginning next month and extending into 1968.

These contracts are the result of negotiations conducted by our Divisional Sales Department over a period of months, part of the negotiations outlined by Del Brubaker, Divisional Sales Manager, in his article in our August Palmist. Del mentioned other negotiations which are still going forward, and we can be assured that many of these also will bear fruit.

Eemco Division Wins Contract for Aircraft Parts

Los Angeles, Calif., October 12, 1967 --- Electronic Specialty Co.'s Eemco Division, a manufacturer of electromechanical devices for the aircraft and aerospace industries, has been awarded commercial/military contracts worth more than \$1.3 million, it was announced recently by Elmer A. Sticco, group vice president.

Eemco, with manufacturing headquarters here, has received a \$600,000 contract from General Dynamics, Pomona, for 650 shipsets of D-1816 motors for the U. S. Navy's Standard and the U. S. Army's ARM anti-radiation missiles. Mr. Sticco reported that Eemco would begin shipments to General Dynamics at the end of November at a rate of 400 motors a month.

The Electronic Specialty division also has been awarded a contract totaling \$275,000 from Northrop Corporation -- subcontractors for the fuselage of the Boeing 747 passenger jetliner -- to produce 20 shipsets of R-184 cargo door electromechanical systems and associated D-2070 rotary actuators. The equipment will be used to raise, lower and lock into position the two main cargo doors on each 747 passenger aircraft.

Mr. Sticco indicated that "delivery will begin in January and that several million dollars in follow-on business is expected for this equipment over the next few years. Future 747 business could represent one of the largest programs the Eemco Division has undertaken in terms of size and the variety of equipment which will be employed."

Northrop also has awarded Eemco a \$270,000 contract for 100 shipsets of D-2076 rotary actuators which will be used to operate the leading edge flaps on the Netherlands' new CF 5 jet fighter. Deliveries will begin in January and this phase of the project should be completed by August, 1968.

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THE ELECTRONICS DIV., PORTLAND, ORE.

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From My Desk--

by Bill Nakamura



OUR PLACE IN ES

Imagination, boldness and skill. These are the ingredients of a proven formula for success -- proven by the men who built ES. These characteristics are not exclusive with the executives who direct this complex corporation; they are also possessed by you people--you and your fellow workers who have brought our Portland Electronics Division to its recognized important place in the ES Corporation.

Imagination! This is always evident throughout the plant. It is found in the suggestions appearing in our Employee's Suggestion Box, and is manifest in the ingenious tools which have been shop designed and shop built, and which make our work easier and our production faster and of consistently higher quality.

Boldness is evident everywhere in the decisions of management and supervisors who overcome difficulties and obstacles to keep production on schedule.

And skill! Skill is inherent in every Portland Electronics Division employee. The skill and craftsmanship which we devote to our individual tasks is responsible for the quality of products which has earned us the reputation for reliability which we enjoy in the industry.

If there were another ingredient to be added to this formula, it would be "desire" -- the DESIRE to be the best division, the DESIRE to make every part, every assembly, every completed relay, module or gyro, better than the one before. The DESIRE to be even better than we are!

Desire is that element in our make-up that comes from self-involvement. Only by becoming personally involved in something -- by actually being a part of it, can we generate any excitement for it. Each of us is a part of the Electronics Division. Together with the other divisions we are the Electronic Specialty Company. This Division will be poor, mediocre or excellent, depending upon our DESIRE and will for our collective futures.

DESIRE is a force for good -- it lifts and encourages us. We all desire better things and greater prosperity for ourselves and our families. An excellent Division will provide this prosperity. Get involved! Build up your DESIRE until it shows in everything you do. Work hard to fulfill that

DESIRE by making every completed task the best job you have ever turned out.

We all can take pride in an excellent division, in fact, pride in our work--the desire to be proud of our work--is the incentive that will get us involved. No self respecting person can be satisfied with less than his best effort. Effort is energy, and 600 best efforts will create an energy force that cannot be denied. It will produce a division of which we all will be proud. We will realize the wonderful feeling of pride in our accomplishments -- and the satisfaction of having done our job well!

With such a burning spirit driving all 600 of us, we will be an excellent Division--the best in the Corporation, and shower ourselves with prosperity and well-being.

General Office Area Reorganized

The general office area has been reorganized to accommodate the return of the Purchasing Department from its temporary quarters in the trailer.

It is expected that the new arrangement will lead to better efficiency because of closer communication between the Production Planning, Purchasing and other departments.

The move also resulted in a more closely knit sales office arrangement, with the Sales Engineers of each product line being grouped in closer proximity to the Sales Manager, Sales Order Dept. and the tele-communications area.

Trade



Winds

Interested Stockholder Tours Portland Plants

W. C. Sturgeon, a spry eighty-one year old stockholder, his daughter, Mrs. John Stewart, who is also a stockholder, along with Mr. Stewart and a neighbor, received a tour of the Electronics and the Portland Divisions on Monday afternoon, October 16, by Walt Justice.

The stockholders were very impressed by our facilities in the Electronics Division, as well as in the Portland Division, and most appreciative of the opportunity to see our operations. As they viewed the different operations, they commented on the attitudes and efficiencies of the employees working at their jobs. They also commented on the cleanliness of the plant and remarked that Portland had a facility here of which the city could be proud.



Left to right: Walt Justice, Mrs. Stewart, her neighbor, Mr. Stewart, Mr. Sturgeon.

Power Failure Stops Work

Breakdown of the transformer in the transformer vault resulted in a power failure last Tuesday afternoon, October 17, causing the swing shift to be excused for the night.

The breakdown occurred at 4:10 P.M. after the end of the day shift and before the swing shift was scheduled to start. It left the plant without production power, although the lights were still operating on "stand by" power.

Through previous arrangement with P.G.E. for just such an emergency, an auxiliary transformer was brought in and hooked up by our plant maintenance crew in time for the start of the work day next morning.

A new transformer has been ordered and will be installed shortly to bring everything back to normal.

OFFICE CHATTER

by Shirley Ray

Bea Fulton has returned to work after having surgery on her right knee. Bea, still on crutches, is doing very good on her sticks. She can't sneak up on anyone however, as she walks with a squeak-thump, squeak-thump. Bea stirred up an old knee injury when she fell roller skating.

By the way, there is a young Miss Fulton that went to the National Skating Championship and came in 7th in speed, 23rd in free style. Not too bad, Miss Fulton. Good luck in the future and, who knows, maybe a Gold Medal some day?

Having been expecting the arrival of a grandchild for some time now, "Grandma to be" May Saito is very busy trying to duplicate all of the gifts she has acquired. Her youngest daughter is expecting twins in December.

A new member to Van Orsow's Ranch nursery, Cookie the horse foaled October 8.

Prize Winning Golfers



Portland and Electronics Division Golfers proudly display trophies presented by EDE ROBERTS, Manufacturing Mgr.

CHAMPIONSHIP FLIGHT:

- 1st place - Bill Schuff
- 2nd place - Norman Rowles

SECOND FLIGHT:

- 1st place - Bill Schneider
- 2nd place - Glenn Gillett

Medal Play, First Division ---
Harry Becker

Medal Play, Second Division ---
Don Eubanks

Vital Statistics

by Sandi Crow

Congratulations to . . .

Linda White, formerly Linda Kinsey, Module, on her marriage to Arlin White September 23rd at Woodland Park Chapel. They honeymooned at Mt. Hood at Timberline Lodge, where they first met. Arlin is employed at Commercial Refrigeration in Portland.

By the time you read this, Norma Seifert, Manufacturing Engineering Secretary, will be Mrs. Robert Myers, Relay Production Control Manager. The very best of luck and happiness to two real fine people.

I was told by Forrest Martinson, Gyro Machine Shop, how unhappy he was that it wasn't announced in our September Palmist on the birth of his "SIXTH" child, which was a baby boy, Scott Arthur, born on August 21st and weighed 9 lbs. 1/2 ozs!! Sorry 'bout that Forrest, I promise on your "SEVENTH," I won't forget!

The role of foster parents has recently been assumed by John Adams, Purchasing Dept., and his lovely wife, Dianne. Three-year old Mark Davis, a blond, curly-haired, brown eyed boy and extremely handsome, has come to stay with the Adamses for an indeterminate length of time. As John says, "it's impossible not to become attached to a boy like Mark," yet they are constantly reminded that their's is only a temporary home, as in the case of most foster children, and he could be taken from them at a moment's notice. John says however, that under the circumstances, they might have Mark for a long time, which I hope they do. I officially met the cute little lad and he is just exactly as John said. A darling child and seemed to be very happy with his new parents.

Well, Ruth Arndt, Personnel, finally did it!! She quit smoking and is going on her 5th week. Walt is awarding her with lunch at some swanky place, but he won't tell me and I can't go until I also quit smoking, which will probably be never. No will power. Judie Jones, Accounting, also quit, just like that!! Ruth starts her diet next week and that's one I'd wager \$10 on that she can't conquer!

We know of no better method for having time for quiet contemplation than being prompt for an appointment. Ledger, Fairfield, Iowa.

Module Assembly Takes Over Trailer

Welded Module Assembly (Dept. 79) is now settling into its new quarters in the trailer at the west end of the building, just across the driveway from the cafeteria entrance. This is the same trailer building which formerly served as temporary quarters for the Purchasing Department near the front entrance. The move was made in order to provide space indoors for the new super-clean-room for the new generation of high reliability relays.

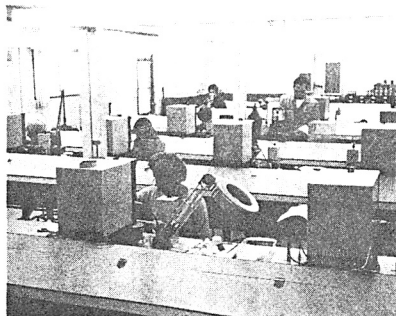
Although the department is small at the moment, consisting of five people under the direction of Working Foreman Larry Baker, it is expected to reach the normal complement of sixteen to twenty skilled assemblers within a few days. Normal production quantities at that time will be in the neighborhood of 3,000 modules per month.

Facilities have been provided in the new quarters for hole-punching the mylar positioners, sorting and kit assembly of components into the mylars and welding the interconnections of the conductors. Some testing is also done here, although the inspection and pre-potting tests are accomplished in the proper departments within the main building.

Basically modules are made up of transistors, diodes, capacitors, and resistors. The module is laid out with all these components and nickle ribbon conductor welded from component to component to make the proper circuit. The soldered module program was converted to an all-welded module. Some modules have only four to five parts that have to be welded together; others could run up to 200-300 parts. An average of many modules being made by our Division would probably contain fifty component parts.

When an order for a module is received, the design people have to know how it will be used. They draw systems that will complete the whole module, making it the size that will be needed.

The parts required have to be purchased in right kinds and quantities, have to pass through inspection when they come in. Critical parts are re-inspected again prior to assembly. The parts are issued out in kits to the assemblers. Assemblers place these parts in the mylars (which are actually a pattern of what has to be done and has been drawn up by the engineering department). After the mylar is loaded up, it goes to the welders and they will work from the color coded prints. The machines have been pre-programmed by color designation to the proper weld



schedules. After the part is made, it is pre-pot tested, then potted and tested again after potting. After this, the identifications such as part number, module number, etc. have to be put on it by the silk screening department.

Welded modules are being made for Teledyne Systems, for I.H.A.S. (Integrated Helicopter Avionics System) for use in computers, ESLA modules for AN/ALR-17 systems for electronic warfare, for Hughes Aircraft and the Phoenix Missile Seeker Head.

* * *

Probably the least effective information in the world is that you furnish when the patio chef asks how you'd like your steak done.

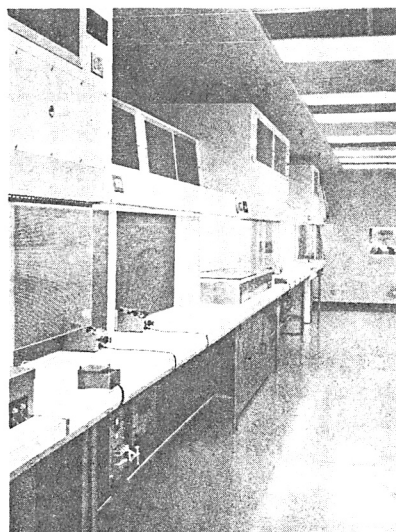
News, Hugo, Okla.

* * *

Be careful when and where you nod. Nod in a car, and you may find a harp in your hand. Nod at an auction, and you may find the harp, accompanied by a horse collar, a brass cuspidor, and a dasher churn.

Era, Fair Haven, Vt.

* * *



NEW CLEAN ROOM

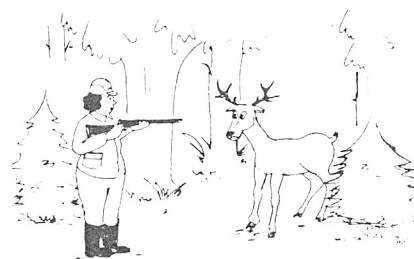
Super Clean Room For Hi-Rel Relays

An unusual condition exists at Electronic Specialty Company's Portland Electronics Division where we have been building gyros in clean rooms since 1954. An outgrowth of the Division's work with gyroscopes is the production of relays. Some of these relays are of the most sophisticated types used on such programs as Apollo, the Lunar Module and for such missiles as Sparta, Scout Walleye and Pershing.

Meeting the specifications established by NASA and military agencies on these units, (that help guide space craft, and control transmission of signals to Earth), made fabrication of a new clean room and the use of rigid inspection methods mandatory. To accommodate the requirements, a new clean room was designed and fabrication started during August of 1967. The design was the combined effort of E. S. plant engineering, Product Engineering and the staff of Grumman Aircraft and Engineering Corp.

The area of the new Hi-Rel Relay clean room is less than 600 square feet, yet the cost, with the new equipment, is considerable. A special filtration system was utilized which has a dual purpose. It not only pressurizes the entire room, but it frees the air of 99.97% of all air borne particles. Further cleanliness is attained using specially designed clean benches and cleaning equipment which will reduce contamination to a non-existent level. Thereafter, the units produced will be vacuum baked and sealed without further contact with room atmosphere.

This Hi-Rel Relay clean room should be one of the finest and best equipped assembly areas used by industry today. However, the clean room is only a portion of our total requirement. The remaining responsibility is shared by the employees and management of the Portland Electronics Division whose skill and integrity must be infallible.



STICK EM' UP!